

## MONTHLY NOTICES

OF THE

## ROYAL ASTRONOMICAL SOCIETY.

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No. 6.

PROFESSOR A. CAYLEY, Vice-President, in the Chair.

Carl Armbruster, Esq., F.C.S., Member of the Quekett Microscopical Club, 4 Grove Villas, The Grove, Hammersmith, W.,

Col. Archibald Campbell, Blythwood, and 2 Seamore Place, Curzon Street, W., and

David Winstanley, Esq., The Doctor's Cottage, Blackpool, were balloted for and duly elected Fellows of the Society.

*First Results of the Transit of Venus.*

(Extract from a Letter of M. D'Abbadie to the Astronomer Royal.)

It may interest you to learn that M. Puiseux has given us the first French results for the Sun's parallax, using the observations of Pekin and St. Paul, all made with object-glasses of 216 millimetres. The parallax is  $8''.879$ . With glasses of 162 millimetres, used by other observers in the same stations, the tenth is the same, and the hundredth less by one or two units. M. Fizeau is busy investigating the errors in the screws to be used in measuring the photographs. Our Committee has agreed, even before receiving your paper, to publish all observations in detail, leaving to others the task of combining and canvassing the final results.

Paris, 1875, April 13.

*Observation of the Transit of Venus at Vizagapatam.*

By A. V. Nursinga Row.

(Abstract.)

The observations were made with an equatoreal telescope, by Cooke, of 6 inches clear aperture, and about  $7\frac{1}{2}$ -feet focal length, and driven by clock-work.

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The weather appeared to be favourable for the last thirty minutes of the transit, and the observations of the egress was successfully made. After the second external contact, when the limb of the Sun had resumed its natural appearance of an arc, a slight indentation was directly formed in the Sun's limb. This indentation was not so dense as that caused by the planet, but was more or less tending to an ash colour, and was apparently greater in arc than the previous one.

The following are the observed sidereal times :—

	h	m	s
Second internal contact . . . . .	16	47	15.4
„ external „ . . . . .	17	15	27.2
Disappearance of the slight indentation noticed above	17	15	54.0

1875, February 20.

*Account of Longitude Operations on the way from Mauritius home-wards.* By Lord Lindsay.

Chronometric Run—Mauritius to Aden.

At Mauritius.—Observatory at Belmont was connected with the railway station by a field telegraph, and railway lines; signals were exchanged with Belmont and the railway station, on evenings January 5 and 7, and the chronometers on board the “Dupleix,” were compared with the standard chronometer immediately after the exchange of signals.

On the afternoon of January 1 the “Dupleix” sailed, and the following morning anchored off St. Denis. Here the thirteen chronometers of the Dutch Expedition were brought on board and compared; thus Belmont and St. Denis was fixed, and the thirteen Dutch chronometers were thrown into the expedition. The Dutch had good observations on the evening before.

On the evening of January 13 the “Dupleix” reached Seychelles, but on account of measles at Bourbon was put in quarantine. After very considerable difficulty on both sides, both from the local health authorities and the Captain of the “Dupleix,” two chronometers were lowered astern, taken off by Captain Wharton of the “Shearwater, and compared with seven chronometers on board the “Shearwater.” On return it was found that no sensible alteration had taken place in the rates of the chronometers during transport. Captain Wharton and his officers obtained equal altitudes of the Sun, the morning before and after; the following are the results (deduced from data just received from Captain Wharton):—